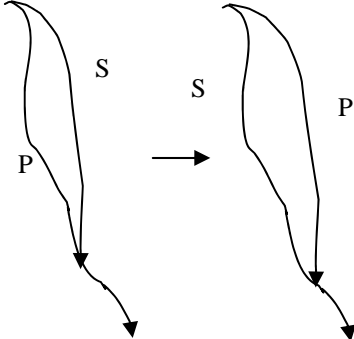
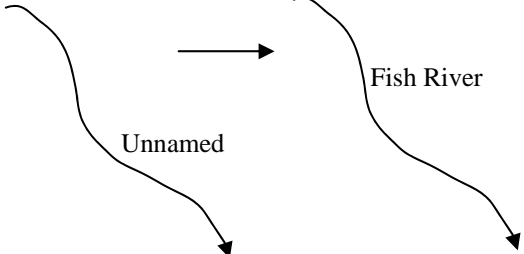
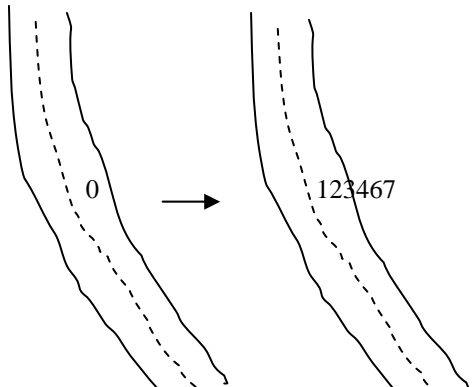


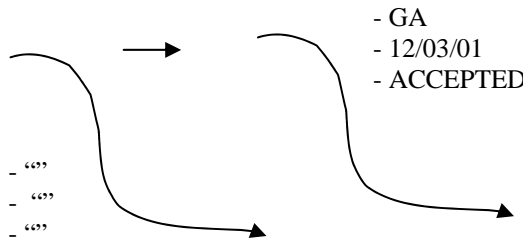
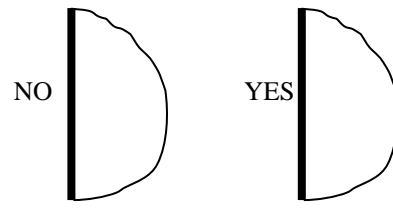
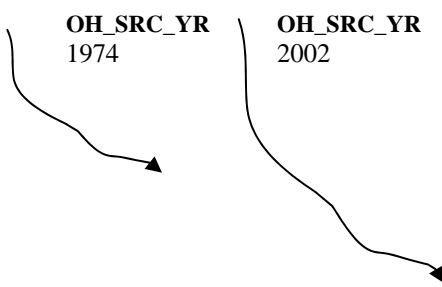
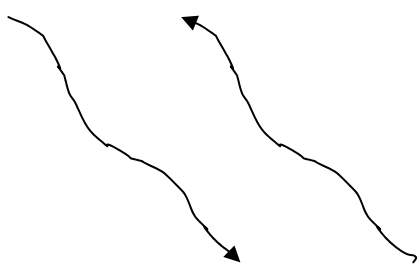
Wisconsin DNR 24K Hydrography Data Capture and Feature-Coding Decision Rules for the Change Flag Items

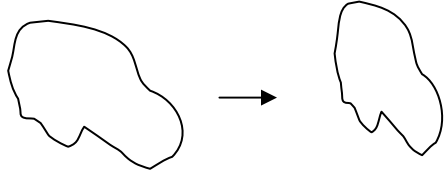
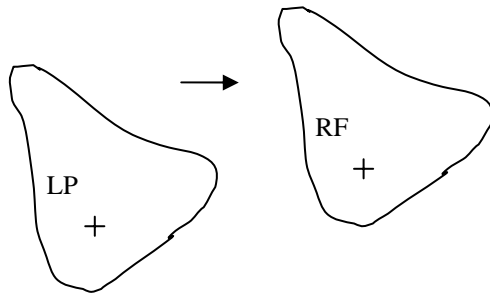
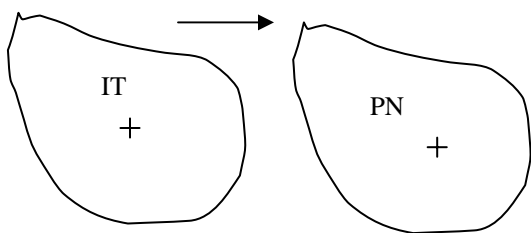
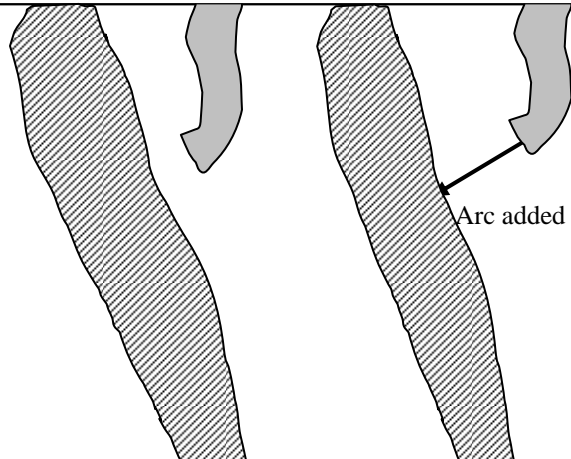
Wisconsin Department of Natural Resources
Bureau of Technology Services
Last Updated: Summer 2005

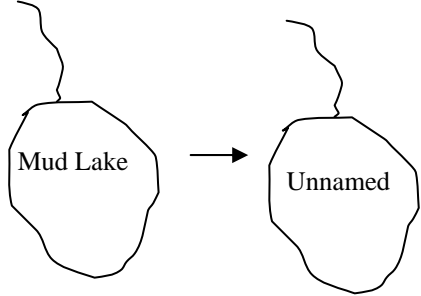
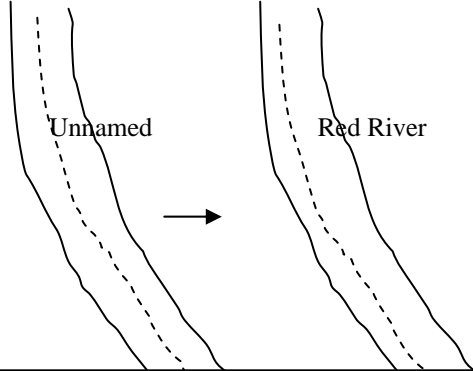
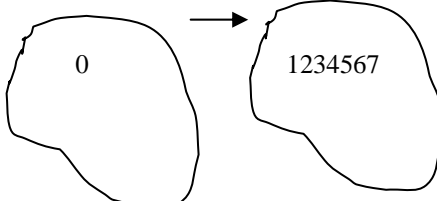


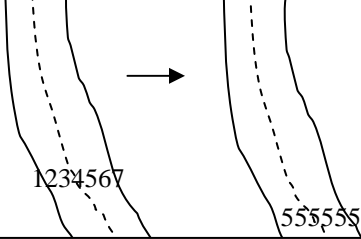
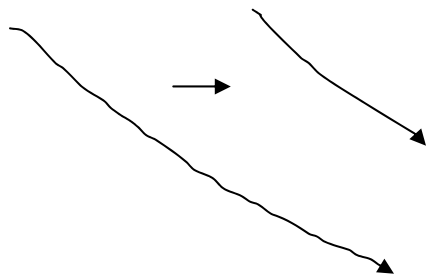
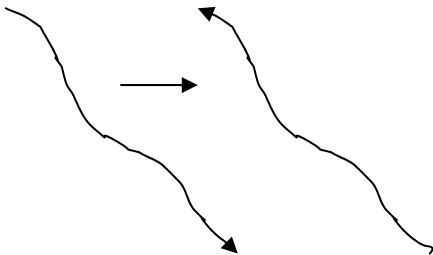
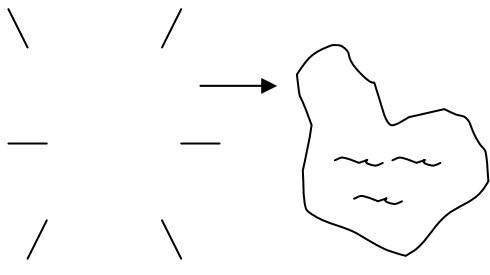
GEOMETRY Change Flag (GEOM_CHFLG)	
ARCS (.AAT)	Before change -> After change
<p>LENGTH If the length of an arc is changed from the previous release, the Geometry Flag will be populated.</p> <p><i>In this example, an arc has been shortened; therefore, the Geometry Change Flag is populated with a 1.</i></p>	
NATURAL Change Flag (NAT_CHFLG)	
ARCS (.AAT)	Before Change -> After Change
<p>LTYPE XX, CW, OC, BK, BF (Non-flow arcs) <-> CL, FP, EX, CB, WG, ST, DC (flow arcs) Non-flow arcs <-> Flow arcs (When Non-flow arcs change to Flow arcs, or when Flow arcs change to Non-flow arcs, the Natural Change Flag is populated.)</p> <p><i>In this example, a flow arc of linear_type of ST remained a flow arc but the linear_type changed to DC, and the Natural Change Flag was populated with 1. Also, an example of non-flow to flow is given.</i></p>	
<p>DURATION IT, PN, FX <-> IT, PN, FX (When a duration of intermittent, perennial, or fluctuating changes to a duration of intermittent, perennial, or fluctuating.) NA<->IT, PN, FX (When a duration of not applicable changes to a duration of intermittent, perennial, or fluctuating, or vice versa) When edits are made to DURATION, Natural Change Flag is populated.</p> <p><i>In this example, an arc was changed from DURATION = 'PN' to 'IT', populating Natural Change flag with a 1.</i></p>	
<p>LANDLOCKED Y<->N (When landlocked equals 'Yes' changes to 'No' or vice versa) When edits are to arcs that affect LANDLOCKED, Natural Change Flag is populated.</p> <p><i>In this example, stream A is extended to connect with stream B. Stream A therefore will no longer be LANDLOCKED and will have the NATURAL CHANGE FLAG item populated with a 1.</i></p>	

NATURAL Change Flag (NAT_CHFLG)	
ARCS (.AAT)	Before change -> After change
<p>FLOW SECONDARY <-> PRIMARY NA <-> SECONDARY or PRIMARY</p> <p>When flow is changed, the Natural Change flag is populated.</p> <p><i>Both streams in this braided example would have their Natural Change Flag populated with a 1.</i></p>	
GNIS Change Flag (GNIS_CHFLG)	
ARCS (.AAT)	Before Change -> After Change
<p>RIVSYSNAME NAME <-> NAME/NAMED or UNNAMED <-> NA -> NAMED or UNNAMED</p> <p>Any changes to the RIVSYSNAME item will be flagged in the GNIS CHANGE item.</p> <p><i>In this example, an Unnamed stream is changed to 'Walt's River' therefore populating GNIS Change Flag with a 1.</i></p>	
WBIC Change Flag (WBIC_CHFLG)	
ARCS (.AAT)	Before Change -> After Change
<p>RIVSYSWBIC WBIC <-> -1 WBIC <-> WBIC</p> <p>Any changes made to RIVSYSWBIC will populate the WBIC CHANGE item with a 1.</p> <p><i>In this example, a river with no WBIC value is changed to 1234567, thus populating the WBIC Change Flag.</i></p>	

REFERENCE Change Flag (REF_CHFLG)	
ARCS (.AAT)	Before Change -> After Change
<p>WBIC_BY, WBIC_DATE, WBIC_STAT</p> <p>When WBIC metadata is changed, Reference Change Flag is populated with a 1.</p> <p><i>In this example, an arc is given a WBIC therefore corresponding WBIC metadata is given to the arc.</i></p>	
<p>QUADLINE YES<-> NO</p> <p>Any changes to the item QUADLINE, either from YES to NO or vice versa, will populate the REFERENCE Change Flag with a 1.</p> <p><i>In this example, QUADLINE is changed from NO to YES.</i></p>	
<p>OH_SRC_YR, YH_COL_MTH, OH_SRC_DNM, XREF, WGS-ID</p> <p>Any changes to the items listed above will populate the REFERENCE Change Flag with a 1.</p> <p><i>In this example, the OH_SRC_YR (the original source year of the line work) was updated because a more recent USGS quad was found.</i></p>	
FLIP Change Flag (FLIP_CHFLG)	
ARCS (.AAT)	Before Change -> After Change
<p>An arc that is 'flipped' will be flagged as having a FLIP CHANGE item populated with a 1.</p> <p><i>In this example, an arc is flipped.</i></p>	

GEOMETRY Change Flag (GEOM CHFLG)	
REGIONS (. PATSHAID)	Before Change -> After Change
<p>AREA and PERIMETER</p> <p>Edits made to the Regions that affect AREA will be flagged in the Geometry Change item.</p> <p><i>In this example, a lake decreases in both AREA and PERIMETER.</i></p>	
NATURAL Change Flag (NAT CHFLG)	
REGIONS (.PATSHAID)	Before Change -> After Change
<p>STYP Stype > Stype</p> <p>Any changes made to the Shaid_type (STYP) of a SHAID will cause the NATURAL CHANGE item to be populated.</p> <p><i>In this example, a lake with STYP of LP is changed to RF.</i></p>	
<p>DURATION IT,PN,FX <-> IT,PN,FX</p> <p>Any changes to the DURATION of the Region will cause the NATURAL Change Flag to be populated with a 1.</p> <p><i>In this example, a lake with DURATION of 'IT' is changed to 'PN'.</i></p>	
<p>LANDLOCKED Y<-> N (LANDLOCKED = 'YES' OR 'NO')</p> <p>When a landlocked feature is changed to a non-landlocked feature or a non-landlocked feature is changed to a landlocked feature, the Natural Change Flag is populated with 1.</p> <p><i>In this example, the shaded SHAID is connected with an arc to the striped SHAID, given the shaded SHAID a landlocked value.</i></p>	

GNIS Change Flag (GNIS_CHFLG)	
REGIONS (. PATSHAID)	Before Change -> After Change
<p>SHAIDNAME Name <-> Unnamed</p> <p>Any changes to the SHAIDNAME field will populate the GNIS CHANGE item.</p> <p><i>In this example, SHAIDNAME = 'Mud Lake' is changed to 'Unnamed'. This will cause the GNIS CHANGE item field to be flagged.</i></p>	 <p>The diagram shows two irregular shapes representing a lake. The first shape is labeled 'Mud Lake'. An arrow points to the second shape, which is labeled 'Unnamed'.</p>
<p>RIVSYSNAME Name <-> Unnamed</p> <p>Any changes made to RIVSYSNAME will populate the GNIS CHANGE item.</p> <p><i>In this example, RIVSYSNAME = 'Unnamed' is changed to 'Red River'.</i></p>	 <p>The diagram shows two winding lines representing a river. The first line is labeled 'Unnamed'. An arrow points to the second line, which is labeled 'Red River'.</p>
WBIC Change Flag (WBIC_CHFLG)	
REGIONS (. PATSHAID)	Before Change -> After Change
<p>SHAIDWBIC WBIC <-> WBIC 0 <-> WBIC</p> <p>Any changes made to the SHAIDWBIC value will populate the WBIC Change Flag with a 1.</p> <p><i>In this example, a SHAID with a SHAIDWBIC value of 0 is changed to 1234567.</i></p>	 <p>The diagram shows two irregular shapes representing a lake. The first shape is labeled '0'. An arrow points to the second shape, which is labeled '1234567'.</p>

<p>WBIC <-> WBIC 0 <-> WBIC</p> <p>Any changes made to the RIVSYSWBIC value will populate the WBIC Change Flag with a 1.</p> <p><i>In this example, a SHAID with a RIVSYSWBIC of 1234567 is changed to</i></p>	
GEOMETRY Change Flag (GEOM_CHFLG)	
Routes (.RATSTEM)	Before Change -> After Change
<p>LENGTH</p> <p>Edits made to the length of a route will cause the Geometry Change Flag to be populated.</p> <p><i>In this example, a route is decreased in length, which will populate the Geometry Change Flag with a 1.</i></p>	
FLIP Change Flag (Flip Flag)	
Routes (.RATSTEM)	Before Change -> After Change
<p>Flipping a route will cause the Flip Change Flag to be populated with a 1.</p> <p><i>In this example, a Route is flipped.</i></p>	
NEW FEATURES Flag (NEW)	
ALL FEATURE CLASSES	Before Change -> After Change
<p>New features will be populated with the 'New' change item with a 1.</p> <p><i>In this example, a new lake is created.</i></p>	

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